MNL90009
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Operation and Maintenance Manual

Model 218 / 228

Insta®
PUT IT ON!®

Heat Seal Machines

Insta Graphic Systems

FOR USE BY QUALIFIED PERSONNEL ONLY

Safety Summary

WARNING
In case of power cord damage, do not attempt to repair or replace the power cord. Contact the manufacturer or the local distributor.

WARNING
Hot Surface. Avoid contact.

CAUTION
During normal operation, the base of the machine needs to be installed or placed above the wall socket.

CAUTION
The machine is to be operated by one person only.

CAUTION
To reduce the risk of electric shock and injury to persons, disconnect from power supply before servicing and /or cleaning.

International Symbols

Power Off

Power On

Hot Surface

Risk of Electrical Shock

Protective Earth Terminal

Ground

Caution - Warning

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Congratulations!

Your selection of the Insta Graphic Systems heat seal machine is a sound business decision. Insta equipment is the result of the highest quality engineering and time-tested design. Your new machine combined with Insta's reputation of innovation in the heat-sealing field, insures the continuing capability of delivering the best-decorated substrates possible.

This manual describes installation, operation, and maintenance procedures for your new 200 series machine, as well as easy to use instructions for on- the- spot maintenance.

Your 218/228 series machine will have a long, trouble free life. Read this manual. Keep it with your machine; it's your key to proper operation and lasting service.

Installation

DOMESTIC

Use a **separate** 15 amp AC circuit. Only industrial extension cords with proper wire size should be used: size 16/3 wire for distances up to 25 feet, and size 14/3 for distances up to 50 feet.

INTERNATIONAL

Use a **designated** 16 amp AC circuit. Only industrial extension cords with proper wire size (2.5 sq. mm) shall be used.

IMPORTANT

The appliance must be plugged into a proper receptacle of the proper size and rating. Equally important the line voltage must be able to accommodate this appliance as well as *other appliances operating on this circuit.*

Specifications

Voltage	**120 Volts AC**	50/60 Hertz
Model 218	1500 Watts	12.5 Amps
Model 228	1750 Watts	14.6 Amps

Voltage	**230 Volts AC**	50/60 Hertz
Model 218	1500 Watts	6.25 Amps
Model 228	2200 Watts	9.6 Amps

Weight Model 218	82 Pounds (37.2 KG)
Weight Model 228	94 Pounds (42.7 KG)

Limited Machine Warranty

Insta Graphic Systems warrants this heat seal machine, when operated under normal conditions, to be free from manufacturing defects in material and workmanship for a period of one year on parts (lifetime on the heating element) and 90 days on labor from the invoice date.

This warranty will be effective only when Insta authorizes the original purchaser to return the product to the factory in Cerritos, California, freight prepaid, and only when the product upon examination has proven to be defective.

This warranty does not apply to any machine that has been subjected to misuse, negligence or accident.

Insta shall not be liable for the injury, loss or damage, direct or consequential, arising out of the use or the inability to use the product.

No claim of any kind shall be greater in amount than the sale price of the product or part to which claim is made.

This is the sole warranty given by the company, it is in lieu of any other warranties, expressed or implied, in law or in fact, including the warranties of merchantability and fitness for a particular use, and is accepted as such by the purchaser in taking delivery of this product.

Operation

1. Turn the power on by pressing the **POWER** button on the controller.

2. Set desired temperature and time. Swing the upper platen arm to its fully open position, away from lower platen. (See Solid State Controller section)

3. Allow the machine to warm up until the selected temperature is reached.

4. Set the desired pressure by adjusting the pressure adjust lever on the top of the machine. To increase pressure, pull the lever forward.

5. Place the substrate on lower platen, smoothing out all wrinkles.

6. Position transfer or lettering on substrate.

7. Swing the upper arm into position directly over the lower platen.

8. Close machine by pulling handle down into locked position.

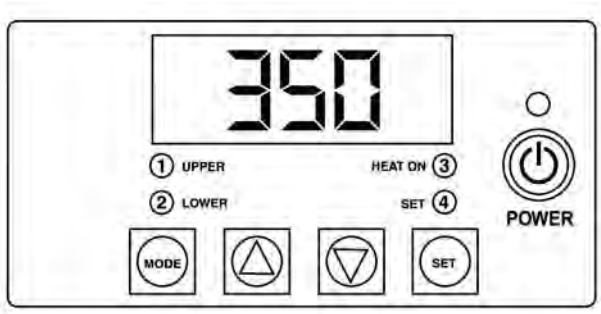
9. The timer will start automatically and a buzzer will beep at the end of the time cycle.

10. Lift safety lock and pull handle up slowly and move upper platen handle to its full open position. This technique will avoid transfer paper (cover) from being pulled off prematurely due to suction from the separating platens.

NOTE
For safety purposes, it is necessary to push the handle into the locked position after it is lifted. This will eliminate the accidental lowering of the heat platen handle.

11. Swing away arm to the extreme right hand position and remove substrate.

Operation Timer/Temperature Control



Solid State Controller

This controller has three (3) control features:

1. Temperature - Temperature may be set from 225-450°F (107-232°C).

2. Time - Time may be set from 1 second to 99.59 minutes.

3. Counter - Cycle counter counts the number of applications from 1 to 9999 (see additional Notes - Counter).

Controller Operation

1. If the temperature is not being displayed, press the **MODE** button until temperature is displayed.

2. Push and hold **SET** button and simultaneously push UP (↑) or DOWN (↓) arrow buttons to the desired temperature setting.

3. Press the **MODE** button until time is displayed.

4. Push and hold **SET** button and simultaneously push UP (↑) or DOWN (↓) arrow buttons to the desired timer setting.

ADDITIONAL NOTES:

Temperature

NOTE
Fahrenheit/Centigrade (Celsius) Conversion
The temperature controller can be programmed to display either °F or °C.
To change:
Press the MODE button until the temperature is displayed, then push and hold the SET button for 10 seconds.

Timer

- The controller has a count down timer that automatically activates a buzzer at the completion of the application.
- Timer display is minutes:seconds. Range is **00:00** to **99:59**, Colons (:) flash while timer is running.

NOTE
The timer or buzzer may be stopped while the handle is in the down position by pressing the MODE button. The timer will automatically reset after the handle is raised.

Counter

The controller has a built in cycle counter.

- Press **MODE** button until the counter is displayed.
- Counter display range is 0000 to 9999.
- To reset the cycle counter, display the counter reading, then push and hold both UP (↑) and DOWN (↓) arrow buttons for 3 seconds until the counter resets to zero (**0000**) on the display.

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Preventive Maintenance Suggestions

The Insta heat seal machines are relatively maintenance free. For long trouble-free life, the following preventive maintenance should be followed:

1. Do not heat seal items such as buttons, pins, snaps, or zippers that tend to cut the silicone rubber pad or scratch the Teflon heat platen.

2. Periodically clean the Teflon-coated heat platen with a non-abrasive piece of cloth. Stubborn stains may be cleaned, **when platen is cool**, with mineral spirits.

3. When the heat platen is hot and not in use, keep in open position (away from the silicone rubber pad).

4. To prevent soiling of substrate, periodic wiping of the entire exterior machine, including platens, with a clean rag is recommended. If necessary, use mineral spirits for cleaning a **cold** machine. Since mineral spirits are flammable, use precautions and keep away from sparks, flame, or hot heat platen.

5. The Model 218/228 machines require periodic lubrication with a high-temperature, non-melting grease (MPPL023).
    A. Lubricate the post, handle and cam assembly depending upon usage. (Once every month if used continuously.)
    B. There are four (4) points of lubrication:
        a) Post
        b) Lower Cam
        c) Guide Post
        d) Upper Pin Area

In addition, occasionally apply a few drops of heavy machine oil to the upper portion of the cam assembly. To lubricate the pressure adjustment, raise cover an inch or two and apply heavy machine oil to slide mechanism.

General Maintenance

It is recommended that you have the following items available:

A. Regular screw driver
B. Phillips head screw driver
C. Small adjustable wrench
D. Needle nose pliers with insulated handle
E. Set of Allen wrenches
F. Grease gun
G. Special high temperature grease MPPL023

With the above items you should be able to accomplish most repairs.

WARNING

Power cord replacement should be from the manufacturer only (because it requires a specially prepared cord).

Replacement of Silicone Rubber Pads

1. Make sure heat platen is cool.

2. Use tube of MPPC006 adhesive to bond silicone rubber pad to metal platen.

NOTE: *Read instructions on the tube package.*

3. Be sure that the surface of the silicone platen is clean. Use a **mild** solvent such as **mineral spirits**.

4. The pad and metal must be thoroughly dry and clean, before starting the bonding operation.

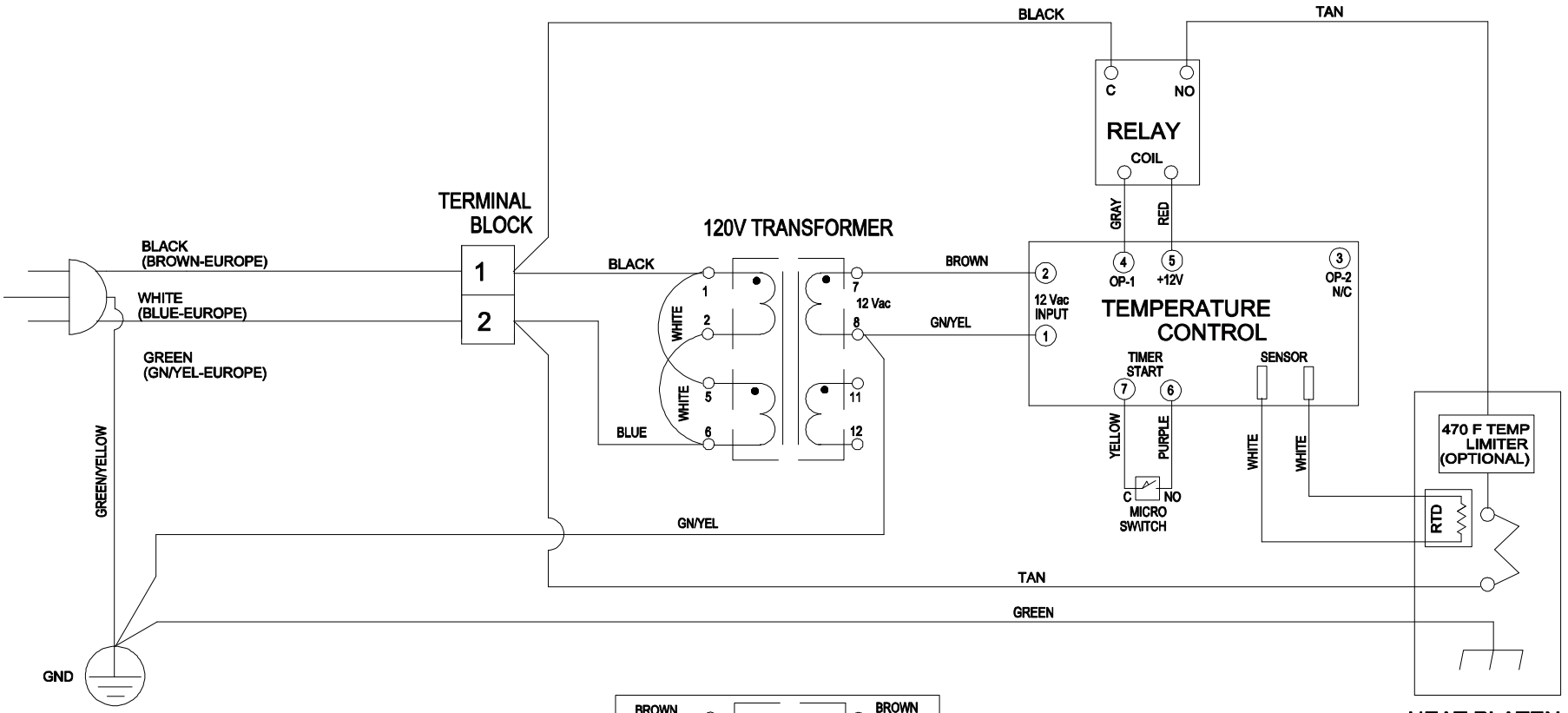
5. Apply adhesive sealant to the metal platen. Spread a thin even coat and apply pad immediately. Apply pressure and position pad making sure that there is no air entrapment.

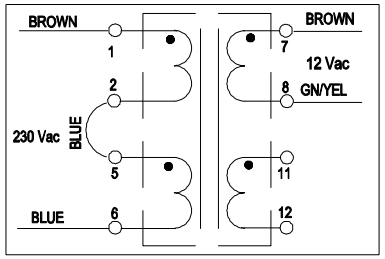
NOTE: *A serrated blade such as used for laying down rubber floor tiles would be helpful.*

6. Allow to cure overnight under low pressure at normal room temperature.

Notes:

MODEL 218 / 228

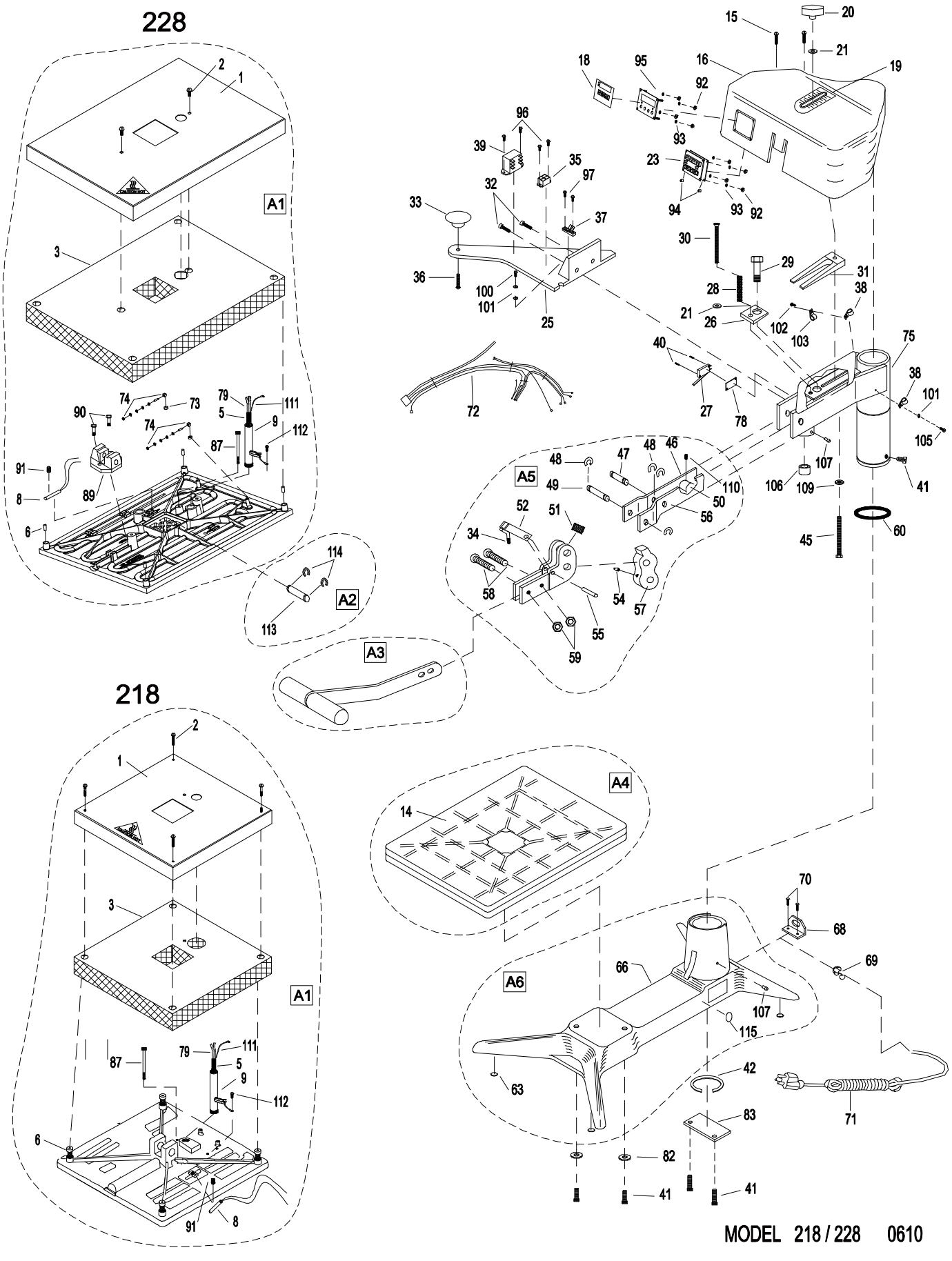




230V TRANSFORMER

MODEL 218 / 228 WIRING DIAGRAM 1004

MODEL 218 / 228



NO	PART NAME	MODEL 218 120V AC	MODEL 218 240V AC	MODEL 228 120V AC	MODEL 228 230V AC
1	SHROUD, HEAT	MPSS218	MPSS218	MPS90174	MPS90174
2	SCREW, PAN HD #10 x 1.00 LONG PHIL SH METAL	MPSS143	MPSS143	N/A	N/A
2	SCREW, BUTTON HD #5/16-18 x .50 LONG	N/A	N/A	MHSB5161812	MHSB5161812
3	INSULATION, FIBERGLASS	MPSP251	MPSP251	MPSP254	MPSP254
5	TUBING, SHRINK TFE AWG7	MPPS131	MPPS131	MPPS131	MPPS131
6	INSULATORS, SPACER (4/SET)	MPSI089	MPSI089	MPI90156	MPI90156
8	SENSOR, TEMPERATURE	MPPS210	MPPS210	MPPS210	MPPS210
9	GUIDE POST	MPSP085	MPSP085	MPSP085	MPSP085
14	PAD, SILICONE RUBBER	MPPP030	MPPP030	MPPP031	MPPP031
15	SCREW, PHILLIP PAN HEAD 10-24 x 0.5 LONG	MHSP102412	MHSP102412	MHSP102412	MHSP102412
16	HOUSING, INSTRUMENT	MBAH90000	MBAH90000	MBAH90000	MBAH90000
18	LABEL, OVERLAY	MPPL011	MPPL011	MPPL011	MPPL011
19	LABEL, SCALE OVERLAY (PRESSURE ADJ.)	MPPL012	MPPL012	MPPL012	MPPL012
20	KNOB, PRESSURE ADJUST	MPPK019	MPPK019	MPPK019	MPPK019
21	WASHER, 5/16" I.D.	MHWSAE516	MHWSAE516	MHWSAE516	MHWSAE516
23	CONTROLLER, DIGITAL	MPC90003	MPC90003	MPC90003	MPC90003
25	HANDLE, SWING AWAY	MPSP013	MPSP013	MPSP013	MPSP013
26	WASHER, WEDGE	MPSP010	MPSP010	MPSP010	MPSP010
27	SWITCH, MICRO	MPPS043	MPPS043	MPPS043	MPPS043
28	SPRING, TENSION	MPSS200	MPSS200	MPSS200	MPSS200
29	SCREW, BOLT HEX 1/2-13 x 3.00 LONG	MHBH12133	MHBH12133	MHBH12133	MHBH12133
30	SCREW, FLAT HD 5/16-18 x 2.00 LONG	MHSF516182	MHSF516182	MHSF516182	MHSF516182
31	CAM WEDGE	MPSP001	MPSP001	MPSP001	MPSP001
32	SCREW, SOCKET HD 1/4-20 x 0.50 LONG	MHSSH142012	MHSSH142012	MHSSH142012	MHSSH142012
33	KNOB, MUSHROOM	MPPK017	MPPK017	MPPK017	MPPK017
34	CAP, VINYL BLACK 5/16" x .281 LONG	MPC90006	MPC90006	MPC90006	MPC90006
35	RELAY	MPPR200	MPPR200	MPPR200	MPPR200
36	SCREW, BUTTON HD 1/4-20 x 0.875 LONG	MHSB142078	MHSB142078	MHSB142078	MHSB142078
37	TERMINAL BLOCK	MPB90006	MPB90006	MPB90006	MPB90006
38	CLAMP, CABLE 5/16 IN	MHCC516	MHCC516	MHCC516	MHCC516
39	TRANSFORMER	MPT90001	MPT90001	MPT90001	MPT90001
40	SCREW, ROUND HEAD 4-40 x 0.75 LONG	MHSR44034	MHSR44034	MHSR44034	MHSR44034
41	SCREW, SOCKET HD 5/16-18 x 0.75 LONG	MHSSH5161834	MHSSH5161834	MHSSH5161834	MHSSH5161834
42	RING, SNAP	MPSR268	MPSR268	MPSR268	MPSR268
45	SCREW, CARRIAGE BOLT 5/16-18 x 2.750 LONG	MHBC51618234	MHBC51618234	MHBC51618234	MHBC51618234
46	PRESSURE ADJUST LEVER (LH)	MPSP2201	MPSP2201	MPSP2201	MPSP2201
47	PIN, PIVOT (LOWER)	MPSP2211	MPSP2211	MPSP2211	MPSP2211
48	E-CLIPS	MPSC240	MPSC240	MPSC240	MPSC240
49	PIN, CAM PIVOT (UPPER)	MPSP262	MPSP262	MPSP262	MPSP262
50	NUT, PRESSURE ADJUSTMENT	MPSP2209	MPSP2209	MPSP2209	MPSP2209
51	SPRING, CAM	MPSS201	MPSS201	MPSS201	MPSS201
52	SAFETY LOCK	MPSL240	MPSL240	MPSL240	MPSL240
54	FITTING, GREASE (SHORT)	MPSF145	MPSF145	MPSF145	MPSF145
55	PIN, ROLL (SAFETY LOCK)	MPSR141	MPSR141	MPSR141	MPSR141
56	PRESSURE ADJUST LEVER (RH)	MPSP2200	MPSP2200	MPSP2200	MPSP2200
57	CAM	MPSC218	MPSC218	MPSC218	MPSC218
58	SCREW, BUTTON HD 5/16-18 x 1.00 LONG	MHSB516181	MHSB516181	MHSB516181	MHSB516181
59	NUT, HEX JAM 5/16-18	MHNHJ51618	MHNHJ51618	MHNHJ51618	MHNHJ51618
60	O'RING	MPSS273	MPSS273	MPSS273	MPSS273
63	FEET, RUBBER (4/SET)	MPF90004	MPF90004	MPF90004	MPF90004
66	BASE	MPSB204	MPSB204	MPSB204	MPSB204
68	BRACKET, STRAIN RELIEF CORD	MPSS163	MPSS163	MPSS163	MPSS163
69	STRAIN, RELIEF	MPSS168	MPSS168	MPSS168	MPSS168
70	SCREW, PHILLIP PAN HEAD 10-32 x 0.375 LONG	MHSP103238S	MHSP103238S	MHSP103238S	MHSP103238S
71	POWER CORD (USA MODEL)	MPPW141	MPPW142	MPPW141	MPPW142
71A	POWER CORD (EUROPEAN MODEL)	N/A	MPPW202	N/A	MPPW202
71B	POWER CORD (UK MODEL)	N/A	MPPW203	N/A	MPPW203
72	WIRE HARNESS	MPW90011	MPW90011	MPW90011	MPW90011
73	CERAMIC INSULATOR	N/A	N/A	1004487501	1004487501
74	TERMINAL END ASSEMBLY	N/A	N/A	1004487502	1004487502
75	POST, ARM	MPSP235	MPSP235	MPSP235	MPSP235
78	INSULATION, MICRO SWITCH	MH700214	MH700214	MH700214	MH700214
79	WIRE, HEATER	MPPW700	MPPW700	MPPW700	MPPW700
82	WASHER, CUT 5/16 I.D.	MHWC516	MHWC516	MHWC516	MHWC516
83	STOP PLATE, REAR POST	MPSP2303	MPSP2303	MPSP2303	MPSP2303
87	SCREW, SOCKET HD 1/4-20 x 4.0 LONG	MHSSH14204	MHSSH14204	MHSSH14204	MHSSH14204
89	CLEVIS	MPSP221	MPSP221	MPSP221	MPSP221
90	SCREW, HEX BOLT 1/4-20 x 1" IN LONG	N/A	N/A	MHBH14201S	MHBH14201S
91	SCREW, SOCKET SET 3/8-16 x 0.5 IN	MHSST381612	MHSST381612	N/A	N/A

NO	PART NAME	MODEL 218 120V AC	MODEL 218 240V AC	MODEL 228 120V AC	MODEL 228 230V AC
91	SCREW, SOCKET SET 5/16-18 x 0.25 IN	N/A	N/A	MHSST5161814	MHSST5161814
92	NUT, HEX 6-32	MHNH632	MHNH632	MHNH632	MHNH632
93	WASHER, SHIM #6 (.031)	MH311150019	MH311150019	MH311150019	MH311150019
94	SPACER, LONG NYLON 0.166 id X 1/4 IN	MH110969111	MH110969111	MH110969111	MH110969111
95	PLATE, CONTROLLER	MPP90011	MPP90011	MPP90011	MPP90011
96	SCREW, PHILLIP PAN HEAD 8-32 x 0.25 IN	MHSP83214	MHSP83214	MHSP83214	MHSP83214
97	SCREW, PHILLIP PAN HEAD 8-32 x 0.5 IN	MHSP83212	MHSP83212	MHSP83212	MHSP83212
106	BUSHING, GUIDE POST	MPSB070	MPSB070	MPSB070	MPSB070
107	FITTING, GREASE (LONG)	MPSF144	MPSF144	MPSF144	MPSF144
109	WASHER, WAVE 0.5 IN	MH5806282	MH5806282	MH5806282	MH5806282
110	SCREW, SET 8-32 x 0.1875 IN LONG	MHSST832316	MHSST832316	MHSST832316	MHSST832316
111	GROUND WIRE	MPW90125	MPW90125	MPW90125	MPW90125
112	SCREW, PHILLIP PAN HEAD 6-32 x 0.25 IN	MHSP63214	MHSP63214	MHSP63214	MHSP63214
113	LUG PIN	MPP90141	MPP90141	MPP90141	MPP90141
114	CLIPS "E"	MPSC240	MPSC240	MPSC240	MPSC240
115	LABEL, ROHS / WEE	MPL90175	MPL90175	MPL90175	MPL90175
A1	**PLATEN, UPPER ASS'Y**	**MPP218A1A**	**MPP218A2A**	**MPP228A1A**	**MPP228A2A**
A2	**LUG PIN ASSY**	**MPP90141**	**MPP90141**	**MPP90141**	**MPP90141**
A3	**HANDLE, PRESSURE ASS'Y**	**MPSH515**	**MPSH515**	**MPSH515**	**MPSH515**
A4	**PLATEN, LOWER ASS'Y**	**MASP010**	**MASP010**	**MASP007**	**MASP007**
A5	**CAM / PRESSURE LEVER ASS'Y**	**MPSC201**	**MPSC201**	**MPSC201**	**MPSC201**
A6	**BASE ASS'Y**	**MPSB204**	**MPSB204**	**MPSB204**	**MPSB204**

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